

## **AMENDMENTS TO THE SPECIFICATION**

### **On page 2, lines 8-19, please amend as follows:**

In one aspect of the invention there is provided use of live *Arthrobacter* cells in the preparation of a medicament for the treatment or prevention of piscirickettsiosis in fish. The preferred targets of the medicament are salmonid fish exposed to risk of SRS infection. The *Arthrobacter* cells are preferably from the strain deposited under accession number ATCC 59921 55921, or an equivalent strain.

In a second aspect of the invention there is provided a vaccine composition comprising live *Arthrobacter* cells and a killed bacterial immunostimulant, and a pharmaceutically acceptable carrier. In another aspect of the invention there is provided a vaccine composition comprising killed *Arthrobacter* cell material, and use of killed *Arthrobacter* cell material as an immunostimulant. The killed *Arthrobacter* cell material is preferably from the strain deposited under accession number ATCC 59921 55921, or an equivalent strain.

### **On page 4, lines 7-20, please amend as follows:**

Renogen<sup>TM</sup> is based on a particular deposited strain of *Arthrobacter* (ATCC 59921 55921). In performing the present invention, this strain or equivalent *Arthrobacter* strains can be employed. Equivalent *Arthrobacter* strains share the identifying characteristics of *Arthrobacter* ATCC 59921 55921. They display similar protective capabilities against SRS. A species of *Arthrobacter* having an identical 16S rDNA sequence or a 16S rDNA sequence having a divergence of less than 3% with the strain ATCC 59921 55921 is regarded as being equivalent. This 16S rDNA sequence is deposited under Genbank accession number AF099202. Another method of defining an equivalent strain is by RAPD assay using the F12-373 primer (5'-ACGGTACCAAG-3'), as described in Griffiths, SG et al. (1998) *Fish & Shellfish Immunology* 8: 607-619. A distinctive fragment of about 373 bp is generated when this assay is performed on *Arthrobacter* ATCC 59921 55921 and equivalent strains. An alternative RAPD assay described in the same publication using primers RxII-67f (5'-CTGTGCTTGCACGGGGATTA-3') and RxII-284r (5'-GTGGCCGGTCACCCCTCTCAG-3') yields a 260bp fragment when performed on *Arthrobacter* ATCC 59921 55921 or equivalent strains.

**On page 6, lines 7-17, please amend as follows:**

In one embodiment the *Arthrobacter* vaccine of the invention comprises an immunostimulant. The immunostimulant may be any known immunostimulant, but it is preferably a killed bacterial preparation. Preferably the immunostimulant is killed *Arthrobacter* cell material, which is optionally heat killed and is optionally from a culture of *Arthrobacter* ATCC 59924 55921. Suitable examples of killed bacterial preparations include: "Peptimune" (a heat-killed *Arthrobacter* ATCC 59924 55921 culture) and "Ultracorn" (ultrasonicated *Corynebacterium cutis* lysate). An optimal dosage of killed bacterial immunostimulant is (per vaccine unit dose) 1 to 100 µg, preferably in the range 5 to 50 µg, more preferably 10 to 20 µg and optionally about 12 µg of cellular matter. The killed bacterial immunostimulant is optionally dissolved or suspended in sterile diluent (e.g. saline) for mixing with lyophilized live *Arthrobacter* cells.